

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-19 (cancelled).

20. (New) A device for monitoring fluctuations in an opaque body, the device comprising:

(a) at least one low power microwave emitter for locating adjacent the opaque body;

(b) a microwave detector for detecting fluctuations in the scattering characteristics from said opaque body;

(c) a signal processing means for analysing said fluctuations from the body so as to thereby derive characteristics about said body.

21. (New) A device as claimed in claim 20 wherein said emitter and detector are formed as one unit.

22. (New) A device as claimed in claim 20 wherein said opaque body comprises a human body and said signal processing means extracts a heart rate from said fluctuations.

23. (New) A device as claimed in claim 20 wherein said opaque body comprises a human body and said signal processing means extracts a respiration rate from said fluctuations.

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24. (New) A device as claimed in claim 20 wherein said device is portable and located near the chest of the human.

25. (New) A method of monitoring fluctuations in the density of an opaque body, the method comprising the steps of:

(a) locating a low power microwave emitter adjacent said opaque body;

(b) monitoring the scattering properties of said opaque body so as to produce a monitor signal;

(c) utilising fluctuations in said monitor signal over time to infer fluctuations in said opaque body.

26. (New) A method as claimed in claim 25 wherein said body comprises a human body.

27. (New) A method as claimed in claim 26 wherein said fluctuations include alterations in the blood flow rate within the human body.

28. (New) A method as claimed in claim 25 wherein said fluctuations include alterations in the respiration rate in the human body.

29. (New) A method as claimed in claim 25 wherein said low power microwave emitter is located adjacent the chest of the human body.

30. (New) A method as claimed in claim 25 wherein said low power microwave emitter includes two antennas, one for output and one for input.

31. (New) A method as claimed in claim 25 wherein said low power microwave emitter includes only one antenna.

32. (New) A remote monitoring system for monitoring a series of patients at remote locations, said monitoring systems comprising:

(a) a series of portable monitoring units for monitoring fluctuations in a human, the monitoring units including at least one low power microwave emitter for locating adjacent the human body, a microwave detector for detecting in the scattering characteristics from the human body; a signal processing means for analysing said fluctuations in the power so as to thereby derive characteristics about said body, and a wireless communications interface for communication characteristics about said body with a spatially separated base station;

(b) a series of base stations, each further interconnected with an information distribution network, said base stations receiving said characteristics from said portable monitoring units and forwarding them to a centralised computing and storage resource;

(c) a centralised computing and storage resource for storing and monitoring said characteristics.

33. (New) A system as claimed in claim 32 wherein said system further includes analysis means for analysing said characteristics for predetermined behaviours and raising a notification alarm upon the occurrence of said predetermined behaviours.